

Pharmacies & Immunizations in Michigan

— October 2018 —

THE INTEGRAL ROLE OF PHARMACIES IN ADULT IMMUNIZATIONS

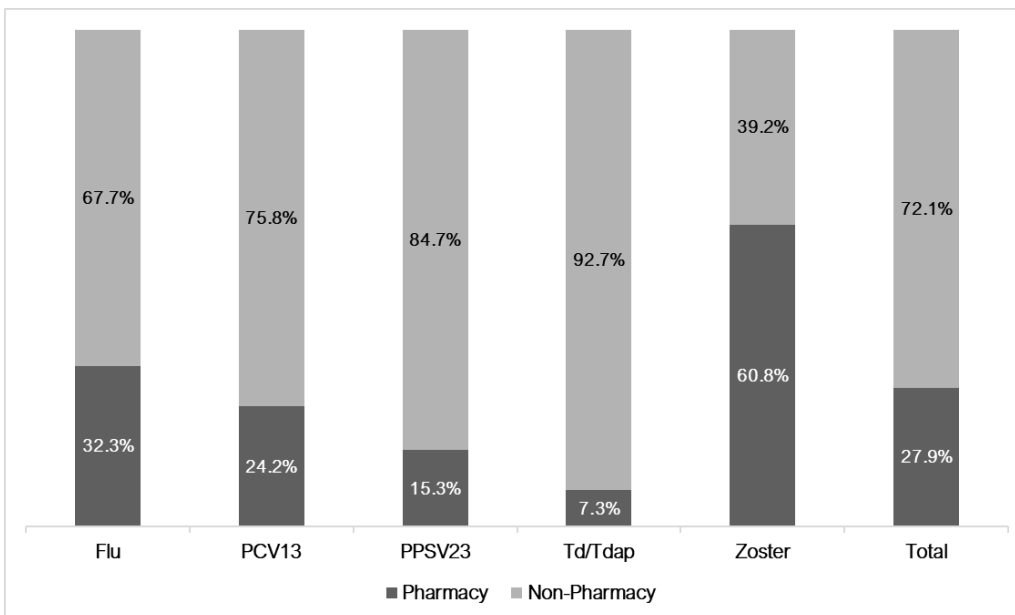
This is the fourth annual edition of the Pharmacy White Paper, a resource created through the partnership between the Michigan Pharmacists Association (MPA) and the Michigan Department of Health and Human Services (MDHHS) Division of Immunization. The purpose of this publication is to show the valuable contribution of pharmacies to adult immunizations, to keep pharmacies informed, and to discuss the power of the Michigan Care Improvement Registry (MCIR) to consolidate patient immunization records so all providers have access to a complete patient immunization history.

Despite remarkable evidence that vaccines significantly decrease the morbidity and mortality of serious disease, adult immunizations are still largely under-utilized in the United States, including Michigan. Barriers still exist in immunizing adults, such as the intricate and expanding adult immunization schedule, the complexity of insurance coverage, and the diversity of health care providers serving the adult population—ranging from primary care physicians and specialists, to community vaccinators. Adults need vaccines throughout their entire life to protect against 14 serious diseases.

Routine and systematic offering of immunizations by a trusted provider, such as a pharmacist, has been shown to both increase immunization uptake and decrease gaps in immunization disparities. There are both missed opportunities for immunization and unnecessary immunization administrations because many health care professionals do not routinely assess the immunization status of adults or utilize the MCIR.

Pharmacies are a key member of the adult immunization neighborhood in Michigan, with pharmacists having the unique ability to reach patients through more convenient access and hours of operation. Make adult immunization a standard of care in your day-to-day practices.

FIGURE 1. PERCENTAGE OF SELECT ADULT IMMUNIZATION DOSES REPORTED TO THE MCIR BY PHARMACY AND NON-PHARMACY SITES, JULY 1, 2017 - JUNE 30, 2018



While MCIR data reporting is not required for adults, it is highly recommended. Participation is crucial to the completeness of adult records and improvement of MCIR vaccine forecasting.

While more than 1,400 large chain, small chain, and independent pharmacies report immunizations to the MCIR, we need 100 percent participation to provide the best care to our patients.

Pharmacies reported over a quarter (27.9%) of select adult immunizations to the MCIR over a 12 month period ending June 30, 2018. Pharmacies reported over half of the zoster (60.8%) vaccines and almost a third of the flu (32.3%) vaccines (Figure 1).

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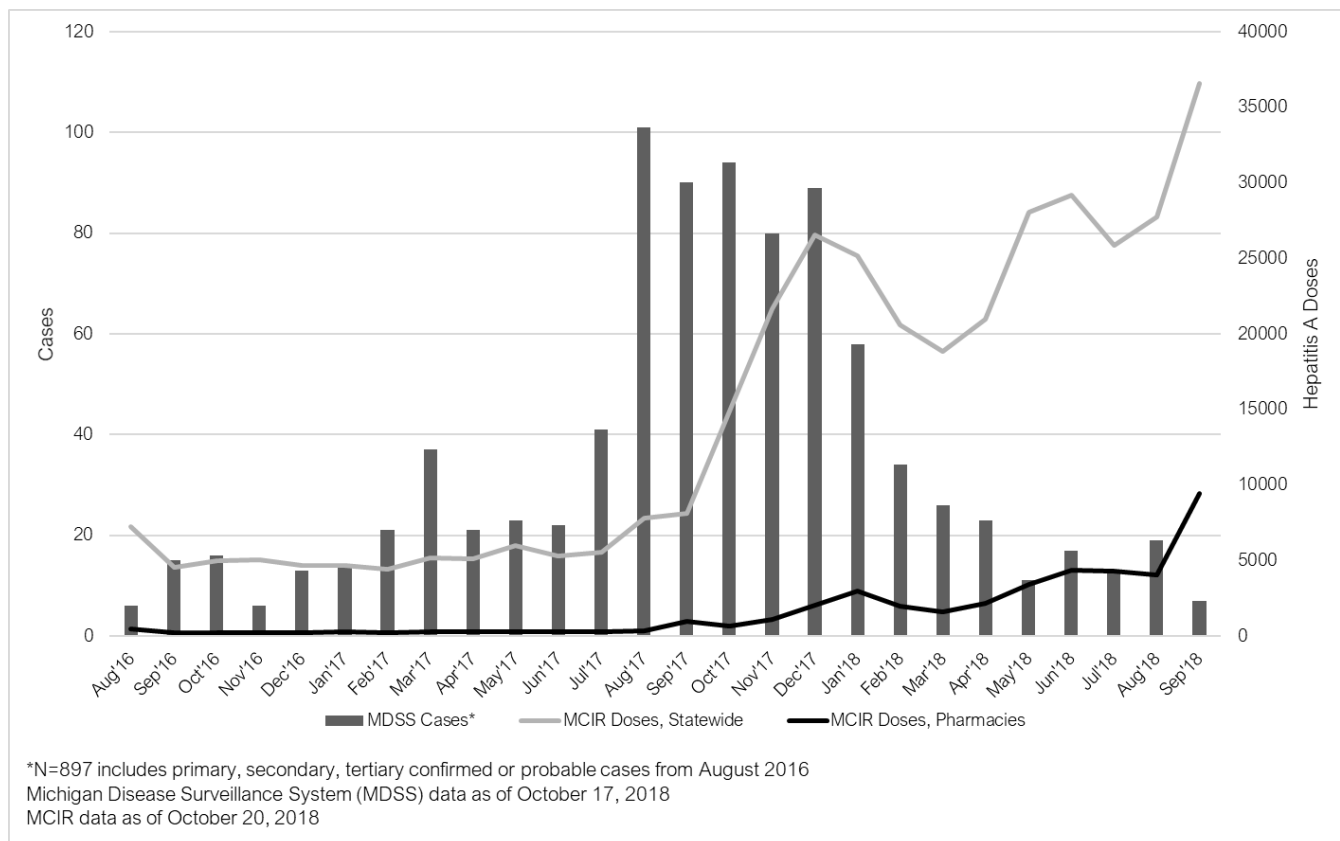
MICHIGAN, THE HEPATITIS A OUTBREAK, AND PHARMACY RESPONSE

Michigan has been experiencing a hepatitis A outbreak since August 2016. Hepatitis A is a contagious liver disease spread via the fecal-oral route with illness appearing 15-50 days after exposure. The outbreak originated in Macomb, Oakland, and Wayne counties, spreading to 30 Michigan counties, totaling 902 outbreak cases as of October 17, 2018.

Hepatitis A Outbreak Key Points:

- Transmission appears to be through direct person-to-person contact and illicit drug use. Persons with history of injection and non-injection drug use, homelessness or transient housing, incarceration, and men who have sex with men are thought to be at greater risk.
- The outbreak strains, as well as some others across the country, are 1b genotypes which have not been previously associated with US outbreaks.
- Notably, the outbreak has a high hospitalization rate, 80% (725 cases) and 28 deaths as of October 17, 2018.
- A more detailed epidemiology summary, updated every Friday, can be found on the outbreak website (www.michigan.gov/hepAoutbreak).

FIGURE 2. HEPATITIS A CASES VS. HEPATITIS A DOSES ADMINISTERED AND REPORTED TO THE MCIR FOR ADULTS 18 YEARS AND OLDER BY MONTH, STATEWIDE AND BY PHARMACIES, MICHIGAN, AUGUST 2016 - SEPTEMBER 2018



According to the MCIR, pharmacies are the third highest provider of adult hepatitis A doses since August 1, 2016, behind local health departments and family practices. Over 1,000 pharmacies across Michigan have reported at least one adult hepatitis A dose to the MCIR, totaling over 45,000 doses. Adult immunization reporting to the MCIR is not required so some pharmacies may not report to the MCIR.

Figure 2 shows outbreak cases, adult hepatitis A doses reported statewide, and doses reported by pharmacies by month. Pharmacies continue to show their value in the adult immunization neighborhood as routine and outbreak response community vaccinators.

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ZOSTER IMMUNIZATION: PHARMACY CONTRIBUTIONS & HOW THE MCIR CAN HELP YOU

In 2008, the Advisory Committee on Immunization Practices (ACIP) recommended the administration of Zoster Vaccine Live (ZVL; Zostavax, Merck) to adults 60 years and older for the prevention of herpes zoster. On October 25, 2017, the ACIP voted to give Recombinant Zoster Vaccine (RZV; Shingrix, GlaxoSmithKline) a preferential recommendation over ZVL for immunocompetent adults 50 years and older. The rare preferential recommendation was given after the ACIP's review of data supporting RZV's higher efficacy and slower waning immunity [1].

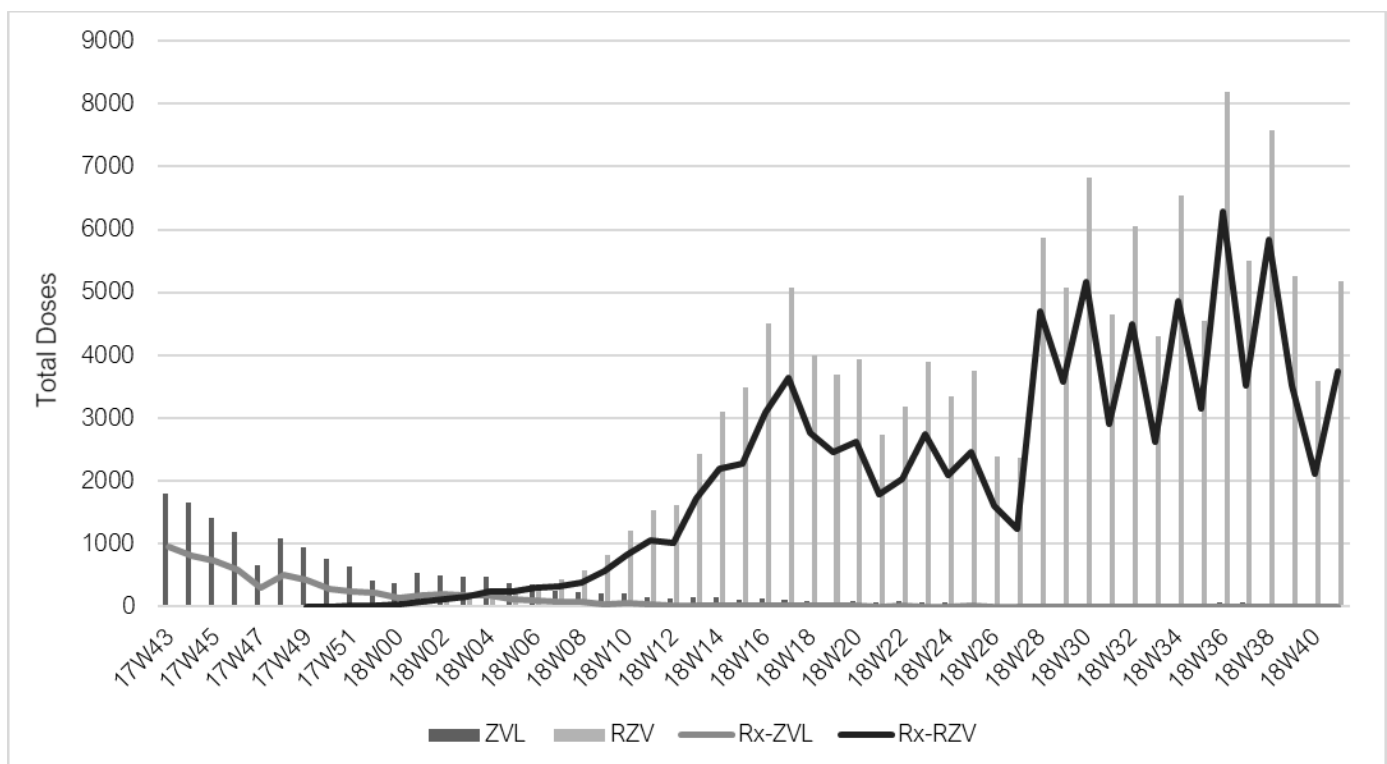
RZV is a 2-dose series, with an interval of at least 2 months between doses. The MCIR assesses and forecasts zoster vaccines according to a 2- or 3-dose schedule (if a ZVL dose has been reported) and is a valuable tool to determine when your patients need a dose of zoster vaccine [1]. If you have questions, do not hesitate to contact your MCIR region at www.mcir.org/providers/contact-regions/.

Michigan pharmacies have consistently been top reporters of ZVL vaccines and are now top reporters of RZV vaccines. **Figure 3** represents the decreased ZVL and increased RZV reporting to the MCIR statewide (bars) and by pharmacies (lines) after the introduction of RZV.

MCIR RZV points from October 20, 2017, to October 20, 2018:

- Over 100,000 adults 50+ years have had at least one RZV dose reported to the MCIR; of the adults that have initiated the RZV series, 68% have had at least one dose reported by a pharmacy.
- The overall median age of initiation was 67 years of age, the pharmacy median age of initiation was slightly higher at 69 years of age.
- Overall, 70% of all RZV doses reported to the MCIR have been reported by pharmacy locations.
- According to the MCIR, 35% of those initiating the series have completed the 2-dose series, with 75% of those individuals completing the series entirely at pharmacy locations.
- For those completing the RZV series, the median interval between the first and second dose was 12.5 weeks.

FIGURE 3. ZOSTER DOSES ADMINISTERED AND REPORTED TO THE MCIR FOR ADULTS 50 YEARS AND OLDER BY VACCINE TYPE AND WEEK, BY PHARMACIES (Rx) AND STATEWIDE, MICHIGAN, OCTOBER 22, 2017 - OCTOBER 20, 2018



[1] [Dooling KL, Guo A, Patel M, et al. Recommendations of the Advisory Committee on Immunization Practices for Use of Herpes Zoster Vaccines. MMWR. Morbidity and mortality weekly report 2018;67:103-108.](#)

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PHARMACIES, HEALTH LEVEL SEVEN (HL7) MESSAGE EXCHANGE, AND THE MCIR

Over 1,400 pharmacies reported to the MCIR during the 2017-18 flu season. And over a thousand pharmacy sites across Michigan are participating in HL7 (VXU) messaging to submit their immunization data to the MCIR (Table 1). A VXU message contains demographic and vaccination data which is submitted to the MCIR by an information system, such as your pharmacy management or electronic health record software.

Pharmacies have begun onboarding to query the MCIR using bi-directional HL7 Query by Parameter (QBP) messaging (Table 1). Here, an information system sends a QBP message that contains basic patient demographic data and requests demographic or vaccination data available for the same patient in the MCIR. Once the MCIR receives a QBP message, the MCIR attempts to match the demographic information contained in the QBP message with data in the MCIR. The MCIR then sends back a response message telling the sending system if the patient was found in the MCIR and what information (demographic, immunization history, or available forecasts, if any) was found [2].

Table 1. Pharmacies Participating in VXU and QBP* HL7 Messaging with the MCIR as of September 25, 2018

Corporate Pharmacies

CVS (303 sites)

Rite Aid (275 sites)

Walgreens (228 sites)

Meijer (118 sites)

Walmart (95 sites)*

Sam's Club (25 sites)*

Costco (15 sites)

Independent Pharmacies

Nash Drugs (3 sites)*

MSU Clinical Center Pharmacy (1 sites)

Hillsdale Market (1 sites)

LaFave (1 sites)

Sav-Mor Pharmacy Sites (3 sites)*

*sites participating in QBP messaging.

To participate in QBP, pharmacies that immunize *must* already be onboarded for VXU messaging.

A list of [information systems that support VXU and QBP messaging](#) can be found at: www.mcir.org >> HL7 >> VXU or QBP >> Approved MCIR HL7 EHR Vendor List.

If your site is interested in participating in HL7 VXU messaging, please contact the MCIR Help Desk by email at MCIRHelp@MPHI.org.

For information on HL7 QBP messaging please contact Sallie Sims, MCIR Query Coordinator with the MDHHS, by phone at 517-284-4880 or by email at SimsS7@michigan.gov.

Adults often receive immunizations in a variety of settings. Therefore, it is critical that all health care professional report both administered and historical immunizations to the MCIR. Reporting will decrease the likelihood of missed immunization opportunities, over-immunizing and immunizing at invalid intervals. Put electronic messaging in place so that you may efficiently report and receive information from the MCIR. This will help keep Michigan up-to-date with vaccine recommendations.

Medicare Part D Comprehensive Medication Reviews are a strong foundation to improve healthcare outcomes of beneficiaries, increase quality of preventive medicine, and reduce costs. Use this annual opportunity to also review and provide timely consultation on ACIP-recommended vaccines. Ensure you have a more complete immunization history by querying or checking the MCIR first. Also, consider the use of pharmacist-extenders to streamline the immunization process; e.g., educate pharmacist-extenders on how to complete adult immunization histories in the MCIR and identify patients that are due for immunizations.

[2] [Centers for Disease Control and Prevention, American Immunization Registry Association. HL7 Version 2.5.1 Implementation Guide for Immunization Messaging. 2014. https://www.cdc.gov/vaccines/programs/iis/technical-guidance/downloads/hl7guide-1-5-Mar2014.pdf, 2018.](#)

Please contact Lynsey Kimmins, Michigan Care Improvement Registry Epidemiologist with the MDHHS, by phone at 517-284-4891 or by email at kimminsi@michigan.gov if you have questions.